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May 14, 1997

Federal Communications Commission Office of Secretary

#### VIA HAND DELIVERY

William Caton **Acting Secretary** Federal Communications Commission 1919 M Street, N.W. Room 222 Washington, DC 20554

Re:

RM-9060 — Joint Comments of Dallas County Community

College District et al.

Dear Mr. Caton:

Transmitted herewith on behalf of Dallas County Community College District, Tarrant County Junior College District, Richardson Independent School District, and Education Service Center Region 10 are an original and five copies of its comments to the Petition for Rulemaking, above-captioned.

Should you have any questions, please contact the undersigned.

Very truly yours,

ounsel for Joint Commenters

cc (w/enc.): Michael J. Jacobs (By Hand: 2033 M Street, Suite 600) ITS Inc. (By Hand)

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# Before the Federal Communications Commission Washington, D.C. 20554

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Federal Communications Commission
Office of Secretary

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In the Matter of	)		-
	)		
Amendment of Parts 21 and 74 To Enhance	)	File No. RM-9060	
The Ability of Multipoint Distribution Service	)		
And Instructional Television Fixed Service	)		
Licensees to Engage in Fixed Two-Way	)		
Transmissions	)		

JOINT COMMENTS OF DALLAS COUNTY COMMUNITY COLLEGE DISTRICT, TARRANT COUNTY JUNIOR COLLEGE DISTRICT, RICHARDSON INDEPENDENT SCHOOL DISTRICT, AND EDUCATION SERVICE CENTER REGION 10

Dallas County Community College District ("Dallas County"), Tarrant County Junior College District ("Tarrant County"), Richardson Independent School District ("Richardson ISD") and Education Service Center Region 10 ("Region 10")(collectively, the "Joint Commenters"), through undersigned counsel, submit their comments to the Petition for Rulemaking in the above-captioned proceeding ("Petition"). The Joint Commenters are local educational institutions that, collectively, are ITFS licensees of 27 channels in the Dallas-Fort Worth, TX Metroplex.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup>Dallas County is the licensee of WNC 582, Channels A1 and A2, and WHR 830, Channels G1-G3, Dallas, TX; Tarrant County is the licensee of WHR 506, Channels A1-A4, Fort Worth, TX; Region 10 is the licensee of WHR 695, Channels C1-C4, Ennis, TX and WHR 718, Channels G1-G4, McKinney, TX; Richardson ISD is the licensee of WHR 881, Channels D1-D4, Fort Worth, TX, WHR 882, Channels A3 and A4, Dallas County, TX, and WEF 69, Channels B1-B4, Dallas County, TX.

#### I. Introduction

The Petitioners have undertaken a difficult task and one that shows tremendous effort and achievement in attempting to develop and articulate service rules that will accommodate novel and innovative use of the ITFS spectrum. Understandably, their task is not complete. The Joint Commenters, for their part, have focused these comments on the interference protection aspect of the Petition.

As incumbent local educators with extensive ITFS curricula, the Joint Commenters support the Petitioners' objective of assuring interference protection (Petition at 3; <u>Id</u>. at 18). Irrespective of the absence of "Input-based" limitations on spectrum use, the expectation that licensed spectrum use will be free from interference has long been inherent in frequency licenses. The public (not to mention the licensee) has a right to expect interference-free, predictable service from technologies that utilize the airwaves, whether they be customers of an Internet service provider or students of a public educational institution.

In pursuit of interference-free amendments to the regulations, the Petitioners have sought: (i) to develop and justify a "method" for assessing the potential for interference (Petition at 32; <u>Id.</u>, Appendix C); and (ii) to apply it in the context of procedural rules (<u>e.g.</u>, Appendix B, proposed §§74.939(d),(g),

74.985(a),(e)). In each of these two aspects, the Joint Commenters have been unable to reconcile the Petition with the objective of interference protection, and, constructively, have identified areas of concern they have with the Petition and its underlying methodology.

### II. There is Insufficient Information to Verify the Methodology.

The Petition (including its Appendices and the Field Test) does not provide sufficient information necessary to undertake an analysis that the proposal has satisfactorily addressed interference. The Petition is not self-contained, either literally or through references, which is an axiomatic requirement going to the sufficiency of any proposal to address interference issues for a substantial change in service requirements for spectrum use.

The "Methodology" (Petition, Appendix C) is undescribed in several crucial respects and where there is description, there is often no substantiation. For example, there is not enough information provided to replicate Petitioners' results in order to validate their conclusions. Rather we must accept, a priori, the "series of software packages" used to generate the theoretical data and the contour maps (Petition, Appendix D at 24). Without knowing the specific nature of this software, it is not possible to independently validate and verify the results

Petitioners advance. Nor are there any sample calculations for checking purposes. Sample calculations are necessary to independently validate and verify any proposal.

By way of further example, the measurement procedure for gathering field strength data is advanced in a vacuum (<u>Ibid.</u> at 21). There is no discussion of why this such procedure was selected over other procedures which is a rudimentary element in any methodological development.

The "Methodology" describes "a grid of points statistically representative of the distribution of transmitters to be expected within the response service area" (Ibid. at 1). Yet the Petition fails to explain how and to what extent the sample points are statistically representative of the universe of points, indispensable information for any evaluation of potential interference or of potential system performance. One missing parameter is optimum sample size, i.e., how many points are needed to successfully and most efficiently model a given market scenario. Related to sample size is the matter of confidence intervals, i.e., within what range is the estimate accurate within a certain level of confidence. Without this information it is not possible to validate through a process of peer review whether Petitioners have advanced the best solution, much less, have performed the optimum analysis.

There appears to be essentially no consideration of system traffic and the manner in which interference could increase (and system capacity decrease) as total traffic loading per cell increases (See Petition, Passim), other than the simplistic, vague assumption of a "maximum number of simultaneous transmissions from response stations associated with each class and each region" (Petition, Appendix C at 1). Nor is there any discussion of what population database was used. Were U.S. Census Bureau data used? If so, did Petitioners use additional data to measure business versus residential user density to avoid the inherent bias in residential data which would underestimate business usage and hence the level of likely interference?

To the extent empirical data were used, they were not representative of the entire (35 mile) protected service area. Testing occurred in only one five mile cell. There are no data, for example, on propagation (and interference) characteristics within a service area with simultaneous adjacent cell operations. While the absence of these data is not condemnatory, the discernable existing data do not support the several possible frequency reuse and transmission/reception plans for the multi-celled response/booster environment envisioned for the service area by Petitioners. For example, the impact has not been addressed of response stations that would occupy primary ITFS spectrum,

yet which would not be required to transmit to the main transmitter location as is presently required (Petition, Appendix B, proposed § 74.939).

Accordingly, it is not ascertainable from the Petition that adequate interference protection measures have been developed, and more work and technical disclosure are needed before the Commission can responsibly implement the measures as requested by Petitioners.

III. The Procedural Application of the Proposed ITFS Response Station and Booster Amendments Are Unduly Burdensome on the Incumbent Licensee in the Quiet Enjoyment of Its License Rights And Do Not Provide For an Actual Interference Standard for Protection.

The Petitioners propose automatic licensing without Commission engineering (or other) review. Presumably batches of "rolling applications" can be filed daily. Expanding upon present service and public notice procedures in effect for applications affecting main channel operations, which already impose an extensive burden on incumbent licensees to police their license rights, the Petitioners have proposed a plan which, if implemented in its full context, will overload incumbent licensees seeking to assure themselves that the likelihood of interference will not result. Incumbent licensees will be forced to evaluate numerous applications (assuming vagaries of the U.S. Postal system are

overcome and the applications are in fact received by the licensees) conceivably as frequently as daily. Moreover, they will be required to assume an extraordinary level of vigilance in Washington, D.C. to monitor numerous public notices to assure that they do not miss petition dates if a problem were present. Inordinate expense and staff will be diverted from ITFS licensees' primary mission of education and without assurance that such additional policing measures would in all cases identify a necessary application or public notice which implicates their license rights. A different, less cumbersome and more effective procedure needs to be developed that places the burden of non-interference on the "output" licensee.

The Joint Commenters urge that, irrespective of such formal procedures that give rise to a deadline for filing petitions to deny, an actual interference standard be established. An actual interference safety net is appropriate and necessary. The requirement that parties cooperate in good faith to resolve actual interference can only go so far in achieving a solution. It does not accommodate the scenario of irreconcilable interference problems, the likelihood for the presence of which are suggested by the new uses of the spectrum both under the currently-proposed application and yet-to-be applications under "output" flexibility.

Several actual interference protection options should be explored, ranging from an absolute duty of the "output" licensee to resolve interference experienced by the incumbent licensee, akin to the requirements of the Interactive Video and Data Service (IVDS) rules (e.g., 47 C.F.R. §§ 95.861(c) and (d)),<sup>2</sup> to extending the actual interference standard in the current ITFS Booster standard (47 C.F.R. §74.985(g)) to the proposed booster and response station operations if interference is experienced anywhere within the incumbent licensee's protected service area, irrespective of the distance of the offending booster or response station from a transmitter of the incumbent licensee. By the same token there should be no preemption of the Commission's regulations by agreement if such agreement causes actual interference at odds with respective

<sup>&</sup>lt;sup>2</sup>The Joint Petitioners advanced this suggestion in their comments to the Request for Declaratory Ruling from which the Digital Order emanated. The Commission did not adopt the suggestion with respect to digital transmissions because it found that digital signals were no more likely to cause actual interference than analog signals and therefore current Commission policies were adequate, including the policy that requires an MMDS station or an ITFS station being leased or used for Non-ITFS purposes causing non-diminimus interference to cease operations until the interference is eradicated. See Declaratory Ruling and Order, Docket No. DA 95-1854, FCC 96-304 (Released July 10, 1996) at ¶¶35,36 and Comments of "Tarrant County" thereto at 2-3. The Commission's determination in the Digital Order is not analogous here: (i) the scenario for interference is far more complex under the Petitioners' proposals; (ii) it appears that proposed rule amendments (Petition, Appendix B) will supersede the 1984 authority underlying the Commission's determination of actual interference protection (See Digital Order at ¶36 citing and quoting 98 F.C.C.2d 68, 93 (1984)); and (iii) in any event the Commission's policy did not explicitly extend to ITFS stations causing the interference during ITFS use (Id.).

(ITFS/non-ITFS/MMDS) service requirements.<sup>3</sup>

#### IV. Conclusion

The Petition requires additional development. The Commission should evaluate the Petition in light of concerns with developing the optimum methodology that ensures interference protection.

Respectfully submitted,

DALLAS COUNTY COMMUNITY COLLEGE DISTRICT TARRANT COUNTY COMMUNITY COLLEGE DISTRICT RICHARDSON INDEPENDENT SCHOOL DISTRICT **EDUCATION SERVICE CENTER REGION 10** 

By: James E. Meyers

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<sup>&</sup>lt;sup>3</sup>The Joint Commenters question whether the Commission has the authority under the Communications Act to in effect abdicate its statutory duty by deferring to private agreements that have preemptive effect.